

Innovative Technology Transfer Partnership (ITTP)

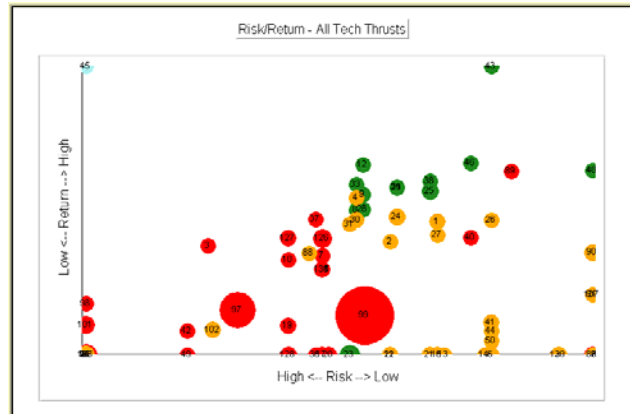


Success Story

Portfolio Analysis Tool (PAT)

Description of Innovation

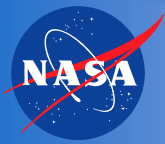
Knowledge Based Systems, Inc. (KBSI), an analysis, modeling and systems software development company out of College Station Texas has developed the Portfolio Analysis Tool (PAT). KBSI received funding through the NASA Small Business Innovation Research program at



Kennedy Space Center. PAT is a web based software tool that facilitates strategic change management. Key functional requirements addressed by PAT include (1) Provide Technology Investment Decision Information; (2) Facilitate Identification of Technology Gaps; (3) Facilitate Development of Technology Development Roadmaps; (4) Facilitate Decision Making over Distributed Teams: Intended PAT end-users are strategic planners and project / technology portfolio managers.

Value Back to NASA

A central function of PAT is to facilitate sound project / technology investment decision making as part of strategic change management. Different types of outputs and visualizations are generated by PAT to accomplish this function, including: (1) Risk-Return Portfolio Analysis, (2) Gap Analysis, (3) Sensitivity Analysis, (4) Roadmap generation, and (4) On-Demand Reports. Key innovations include (i) novel adaptation and application of portfolio theory for strategic decision support and (ii) structured, knowledge based method for strategic planning and change management. PAT is expected to significantly improve NASA's change management capability in the near term. PAT was tested by Spaceport Technology portfolio managers at KSC. It is currently being used by Edgar Zapata at KSC.



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Commercial Benefits

A key characteristic that will distinguish successful enterprises of the next millennium will be the ability to respond quickly, proactively, and aggressively to unpredictable change. Robust methods and tools to facilitate change management are therefore an essential requirement for the modern enterprise. PAT targets key technology gaps and challenges associated with strategic change management: (i) lack of scientific methods for strategic change management; (ii) lack of information-integrated software tools to support the change management process; (iii) lack of knowledge management mechanisms that capture, store, and leverage corporate knowledge for strategic planning and control. Applications of PAT are currently being used by the Air Force and the Army.

Partnership Contributions

KBSI developed the PAT technology. The development was primarily performed at their College Station, Texas office in 2000, 2001, and 2002. It was funded by the NASA SBIR program at Kennedy Space Center. Investments in PAT after the conclusion of the NASA SBIR project that funded PAT exceeds \$750,000 (Tinker AFB).

ITTP Role

Dr. Perakath Benjamin of Knowledge Based Systems, Inc., applied for and was awarded a Phase I and Phase II SBIR Contract through Kennedy Space Center's SBIR/STTR Program to address NASA's need for a tool for investment decision making support and for knowledge capture. These programs are managed by NASA's Chuck Griffin and supported by ASRC Aerospace's Project Specialist, Jennifer Van Pelt.

Other References, Sources

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